

STATUS OF THE CLAIMS

Claims 1-7 are pending in the application.

Claims 1-7 were rejected under 35 USC§102(b) as being anticipated by Price '514.

Claims 1-3 and 5 are amended herein and original claims 4,6 and 7 canceled.

New claims 8-11 have been added.

Claims 1-3, 5 (all currently amended) and new claims 8-11 remain pending in the application following entry of this Amendment B.

REMARKS

Applicant thanks the examiner for extending him the courtesy of the telephone interview, conducted 2/28/06, during which the merits of the claims, as originally presented, were discussed.

Summary of the Invention

The present invention discloses a method for exercising one or more muscles of the body wherein one or more muscle(s) are contracted to move a limb through a range of motion in opposition to an oscillating resistive force. The oscillating resistive force undergoes a plurality of changes, either in direction or magnitude (or both), during a single repetition of the exercise. The oscillations in the magnitude and/or the direction of the resistive force during a single repetition of muscular contraction include a plurality of cycles. The waveform and frequency of the oscillations may vary randomly during a repetition or remain constant such as a sine wave. Embodiments of devices that provide an oscillatory resistive force are presented. The embodiments provide means for enabling an exercisor to perform resistance-type exercises in accordance with the method.

The Rejection Under 35USC§102

Claims 1-7 were rejected under 35USC§102(b) as being anticipated by Price '514 (U.S. Patent 6,224,514). Briefly, Price discloses a resistance exercise device wherein a user moves a rocker arm against an elastic resistive force which can vary (in a nonoscillatory manner) through the range of motion during a single repetition. It is well known in the art that the force required to stretch an elastic member varies in accordance with the how far the elastic member has been stretched. The force required to stretch an elastic member, however, does not vary in an oscillatory fashion during stretching. In order to provide a uniform resistive force during a repetition, Price provides a conical pulley having a helical groove traversing the conical outer surface that compensates for the change in resistive force as the elastic member stretches through the range of motion. The construction of the pulley necessarily changes the direction of the resistive force during a repetition but not in an oscillatory fashion.

In contrast, the present invention discloses and claims an exercise device wherein the resistive force changes, in direction and/or in magnitude, in an oscillatory manner through a plurality of cycles during the performance of a single repetition. Thus, the method of the present invention is in opposition to the teaching of Price. That is, Price teaches away from the present invention by specifying that (Price, col. 1, lines 60-62) "...and wherein a selected resistance value may remain substantially constant over the full range of a selected exercise." This teaching is reinforced by the teaching in Price appearing at col. 4, lines 46-57. Further, there is no teaching in Price of a cam-shaped lead pulley.

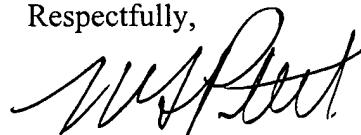
Applicant respectfully disagrees with the Examiner's assertion that (Office Action, Page 2, last sentence): "With respect to claims 6 and 7, as broadly read, a cam may take

many shapes, and in this light, Price teaches the pulley being cam-shaped.” A cam-shaped pulley may be used in Price’s apparatus, but there is no suggestion in Price of any advantage to be gained by making the pulleys in any of his embodiments cam-shaped. In fact, Price’s effort to maintain a constant resistive force during a repetition suggests that a cam-shaped pulley would not provide any advantage for the exercisor. While the term “cam-shaped pulley” may be construed to include a variety of shapes (eg., monolobal, bilobal, polylobal or multilobal), as suggested by the Examiner, the teaching in Price does not suggest any advantage to be gained by using a pulley having a “cam shape” in any conventional meaning of the term. All pulleys employed by Price are circular in cross-section.

As submitted by Applicant in the previous Amendment and Response (Amendment A), in order for a patent to qualify as a reference supporting a §102 (b) rejection, it must disclose each and every limitation of the rejected claim. It is settled that even only slight differences between the compared inventions prevent a rejection based on lack of novelty under §102. Anticipation under 35 USC§102 requires that the cited references demonstrate each and every element of the claimed invention. The mere fact that the prior art may be modified as suggested by an examiner (i.e., the pulley of Price may be a cam) does not make the modification obvious unless the prior art suggests the desirability of the modification. The apparatus of Price, in any of his embodiments, does not provide means for practicing the method of claim 1 of the present invention. Price’s apparatus is only useful for maintaining a uniform or non-oscillatory resistance through the range of motion of a repetition. In view of the differences between the elements of the present invention and those of the prior art presented hereinabove, it is requested that this rejection be withdrawn.

Entry of this amendment, reconsideration, favorable action and early allowance and publication of this application are respectfully requested. If there are any minor matters remaining, it is respectfully requested that the examiner contact the undersigned by phone so that possible minor changes may be discussed in order to expedite the prosecution of this case.

Respectfully,



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Date: 3/27/06

by: 

Michael G. Petit